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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/758,361	01/12/2001	Hiroshi Murakami	018987-031	9455
7590	05/30/2006			EXAMINER GRANT II, JEROME
Platon N. Mandros BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			ART UNIT 2625	PAPER NUMBER

DATE MAILED: 05/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/758,361	MURAKAMI ET AL.
	Examiner	Art Unit
	Jerome Grant II	2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 09 February 2006.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15, 17-19 and 21-33 is/are rejected.
- 7) Claim(s) 16 and 20 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

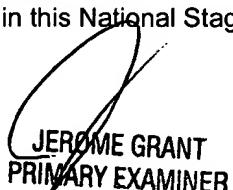
#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

  
JEROME GRANT  
PRIMARY EXAMINER

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

1.

**Detailed Action**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 6, 7, 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Satoshi.

With respect to claim 1, Satoshi teaches a printer controller 3 that receives print jobs from plural terminals (1); and instructs a printer 2 to perform print processing, the printer controller comprising:

A detector 4 and 6 that detects pieces of operation information (printing operation information) each relating to a user's current manual operation of one of the plural terminals (1); a priority determining unit 4 and 8 that determines priority levels for a plural it of jobs, a priority level determined based on the piece of

operation information detected by the detector 4 and 6; and a controller 4 that instructs the printer 2 to process the plural jobs according to their priority levels.

With respect to claim 2, Satoshi teaches this limitation according to step S5.

With respect to claim 7, Satoshi teaches an image forming apparatus shown by figure 5 of Satoshi that receives print jobs from plural terminals 1 comprising: an image forming unit 2 that receives print jobs; a detector 4 and 6 that detects pieces of operation information (printing operation information) each relating to a user's current manual operation of one of the plural terminals (1); a priority determining unit 4 and 8 that determines priority levels for a plural it of jobs, a priority level determined based on the piece of operation information detected by the detector 4 and 6; and a controller 4 that instructs the printer 2 to process the plural jobs according to their priority levels.

With respect to claim 6 and 10, the elapsed timing measurement unit for performing the claimed functions is executed by element 8 the priority determining unit operates in conjunction with elements 4 and 8 in accordance with the specified value.

With respect to claim 11, Satoshi teaches a terminal (1) that transmits print jobs to a printer controller 3 shared with a plurality of other devices (1) as depicted in figure 5 comprising:

a receiving unit keyboard unit shown as part of element 1 in figure 4; a timer (timer means 8) for measuring an elapsed time since an input device 1 was last operated; transmission controller 4 for transmitting jobs after waiting for the timer to measure a specific time (stored in memory 7).

With respect to claim 12, Satoshi teaches a printer controller 4 that receives print jobs transmitted from a plurality of terminals (1) and controls a printer 2 to perform processing, the controller comprising: a detector 4 and 6 that detects pieces of operation information (printing operation information) each relating to a user's current manual operation of one of the plural terminals (1); a priority determining unit 4 and 8 that determines priority levels for a plural it of jobs, a priority level determined based on the piece of operation information detected by the detector 4 and 6; and a controller 4 that instructs the printer 2 to process the plural jobs according to their priority levels.

2.

Claims 3- 5, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Satoshi in view of Muto .

With respect to claim 3, Sotashi teaches all of the subject matter upon which the claim depends except for setting a higher priority level for a print job from a terminal with a non-operational period that exceeds a specified value than for a print job from a terminal with a non- operational period that is no more than the specified value.

Muto teaches the priority determining unit sets a higher priority level for (a) a print job from a terminal with a non-operational period that exceeds a specified value than for (b) a print job from a terminal with a non-operational period that is no more than the specified value (Fig. 17B, col. 14 lines 31-32, wherein host machines that have less frequency of use have a higher printing priority, for example, the frequency of use of host C exceeds the *non frequency* specified value [7] of host A and therefore has higher priority).

Since Satoshi and Muto are both directed toward printing machines and setting levels of priority, the purpose of setting a priority with respect to a specific value of a non-operational period would have been recognized by Satoshi as set forth by Muto.

It would have been obvious to program the controller 8 via the ROM 5a for the purpose

of setting a priority with respect to a specific value of a non-operational period as set forth by Muto.

Regarding claim 4, Muto further teaches the priority determining unit sets higher priority levels for print jobs from terminals with longer non-operational periods (Fig. 17B, col. 14 lines 31-32, wherein host machines that have less frequency of use have a higher printing priority).

Regarding claim 5, Muto further teaches the detector detects each of the pieces of operation information based on a signal transmitted from each terminal (print information is inherently an electronic signal including information that travels from host 300 to printer 1500), each signal being generated when an input device for a terminal is operated (the print information signal is generated when a user specifies a print command for printing a print job).

Regarding claim 8, which depends from claim 7, Muto further teaches the detector detects, as the piece of operation information, a non-operational period during which the terminal has not been operated (col. 14 lines 21-22, predetermined period of time since last use).

Regarding claim 9, which depends from claim 7, Muto further teaches the detector detects each of the pieces of operation information based on a signal transmitted from each terminal (print information is inherently an electronic signal including information that travels

from host 300 to printer 1500), each signal being generated when an input device for a terminal is operated (the print information signal is generated when a user specifies a print command for printing a print job).

3. Claim 12 is rejected under 35 U.S.C. 102(e) as being anticipated by Fresk et al. Fresk teaches a printer controller (processor 54, Fig.2, col. 5 lines 13-14) that receives print jobs transmitted from a plurality of terminals (Fig. 1, terminals 16, 22 and 28; col. 4 lines 3-6), and controls a printer to perform print processing (printer 30, Figs. 1 and 2), the printer controller comprising:

at least one detector that detects whether an operator is in a vicinity of a terminal (col. 2 lines 64-67, Fig. 2 sensor 56, col. 5 lines 30-40). Detection is made when keys are pressed. For each terminal, this information is detected by the at least one detector.

Fresk teaches a priority determining unit that determines priority levels for a plurality of print jobs waiting to be printed (controller gives higher priority to local jobs when a user is present; col. 3 lines 1-3 and 60-61 and col. 5 lines 3-4 and col. 5 lines 17-20), a priority level of a print job determined based on a detection result produced by the at least one detector for a terminal that transmitted the print job (col. 2 lines 38-39 and col. 3 lines 1-3, wherein the priority is sent higher for the local [at least one] detector); and

a controller that controls the printer so that the plurality of print jobs are processed in an order based on the determined priority levels (processor 58 controls the printing of jobs, including receiving the commands from the central processor 54 about which jobs get priority [i.e. the walk up jobs reserve the printer when a user is present]).

4.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by

Minamizawa.

With respect to claim 13, Minamizawa teaches a printer controller (PRINT CPU 90 and FAX CPU 80 are controllers that perform control over fax device 2 in order to receive jobs and print them in image forming unit 26, Fig. 3) that receives print jobs transmitted from a plurality of terminals (jobs can come from other fax devices or from a computer; col. 1 lines 43-44, col. 4 lines 4-15), and instructs a printer to perform print processing, the printer controller comprising:

memory that stores each received print job in correspondence with information indicating a transmission origin terminal (Fig. 3, FAX RAM 84 and PRINT RAM 94 are memory that store received jobs related to fax priority mode or a printer priority mode);

a first timer that measures, for each terminal, an elapsed time since a print job was last received (col. 1 lines 55-58 and col. 8 line 9, wherein a timeout occurs when

a terminal does not send data in a time period, a timer inherent to a timeout operation);

a priority determining unit that determines a priority level for each terminal according to the measured elapsed times (col. 1 lines 49-51 and col. 8 lines 8-12, wherein when a timeout occurs for a terminal because it hasn't sent data, the higher priority of that terminal is released); and

a controller that instructs the image forming unit to process the plurality of print jobs stored in the memory in an order based on the determined priority levels (PRINT CPU 90 and FAX CPU 80 in Fig. 3 control the device to print jobs based on which mode/terminal [fax or computer] is selected, Fig. 7 shows printing of data based on terminal priorities).

With respect to claim 17, Minamizawa teaches an image forming apparatus (Fig. 2) for receiving print jobs from a plurality of terminals (jobs can come from other fax devices or from a computer; col. 1 lines 43-44, col. 4 lines 4-15), the image forming apparatus comprising:

an image forming unit that performs print processing corresponding to the received print jobs (Fig. 3 ref no. 26);

memory that stores each received print job in correspondence with information indicating a transmission origin terminal (Fig. 3, FAX RAM 84 and PRINT RAM 94 are memory that store received jobs related to fax priority mode or a printer priority mode);

a first timer that measures, for each terminal, an elapsed time since a print job was last received (col\_ 1 lines 55-58 and col. 8 line 9, wherein a timeout occurs when a terminal does not send data in a time period, a timer inherent to a timeout operation);

a priority determining unit that determines a priority level for each terminal according to the measured elapsed times (col. 1 lines 49-51 and col. 8 tines 8-12, wherein when a timeout occurs for a terminal because it hasn't sent data, the higher priority of that terminal is released); and

a controller that instructs the image forming unit to process the plurality of print jobs stored in the memory in an order based on the determined priority levels (PRINT CPU 90 and FAX CPU 80 in Fig. 3 control the device to print jobs based on which mode/terminal [fax or computer] is selected, Fig. 7 shows printing of data based on terminal priorities).

5. Claims 14, 15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minamizawa in view of Muto.

With respect to claims 14 and 15, Minamizawa does not specifically teach the priority determining unit sets a higher priority level for (a) a print job from a terminal with an elapsed time exceeding a specified value than for (b) a print job from a terminal with an elapsed time no more than the specified value or the priority determining unit sets higher priority levels for print jobs from terminals with longer elapsed times.

Muto teaches the priority determining unit sets a higher priority level for (a) a print job from a terminal with an elapsed time exceeding a specified value than for (b) a print job from a terminal with an elapsed time no more than the specified value (Fig. 17B, col. 14 lines 31-32, wherein host machines that have less frequency of use have a higher printing priority, for example, the 1 frequency of use of host C exceeds the *non frequency* specified value [7] of host A and therefore has higher priority) and the priority determining unit sets higher priority levels for print jobs from terminals with longer elapsed times (Fig. 17B, col. 14 lines 31-32, wherein host machines that have less frequency of use have a higher printing priority).

It would have been obvious to one of ordinary skill in the art to give higher priority to devices and jobs that call for printing less often. The motivation for doing so would have been to more equally allow the use of the printing device. For example, if one user (high frequency user) has 100 print jobs sent to a device, and another person only has sent one (low frequency user), it would be beneficial to allow the 1 job to complete so that user can continue with their work instead of waiting for all the 100 jobs to complete of the high frequency user.

Regarding claims 18 and 19, Minamizawa does not specifically teach the priority determining unit sets a higher priority level for (a) a print job from a terminal with an elapsed time exceeding a specified value than for (b) a print job from a terminal with an elapsed time no more than the specified value or the priority determining unit sets higher priority levels for print jobs from terminals with longer elapsed times.

Muto teaches the priority determining unit sets a higher priority level for (a) a print job from a terminal with an elapsed time exceeding a specified value than for (b) a print job from a terminal with an elapsed time no more than the specified value (Fig. 17B, col. 14 lines 31-32, wherein host machines that have less frequency of use have a higher printing priority, for example, the I frequency of use of host C exceeds the *non-frequency* specified value [7] of host A and therefore has higher priority) and the priority determining unit sets higher priority levels for print jobs from terminals with longer elapsed times (Fig. 17B, col. 14 lines 31-32, wherein

host machines that have less frequency of use have a higher printing priority).

It would have been obvious to one of ordinary skill in the art to give higher priority to devices and jobs that call for printing less often. The motivation for doing so would have been to more equally allow the use of the printing device. For example, if one user (high frequency user) has 100 print jobs sent to a device, and another person only has sent one (low frequency user), it would be beneficial to allow the 1 job to complete so that user can continue with their work instead of waiting for all the 100 jobs to complete of the high frequency user.

6. Claims 21 — 23 and 25 — 30 are *rejected* under 35 U.S.C. 103(a) as being unpatentable over Gase (US 6184996) in view of Tanimoto (US 6952280).

With respect to claims 21 and 26, Gase teaches a printer controller 14 that receives print jobs transmitted from a plurality of terminals (Fig. 1), and controls a printer to perform print processing (col. 3 line 30), the printer controller comprising:

memory that stores each of the received print jobs (wherein the print queue 28 is implied as stored in a memory) in correspondence with information indicating a transmission origin terminal (col. 3 lines 59-62, wherein owning terminal of a job is stored along with the job information);

a transmission control unit that transmits a request signal requesting transmission of a piece of print processing information for a print job to the transmission origin terminal (col. 3 lines 25-28, wherein the controller requests print jobs from the terminal. The transmission control unit is a separate and distinct part of the server procedure from the receiving unit below as shown in the separate functionality of transmitting requests and receiving command information); and

a controller that receives the piece of print processing information transmitted from the terminal that received the request signal (col. 3 line 28, wherein the client responds to the request signal by sending back print processing information), and controls the printer so as to perform print processing of the job, based on the received piece of print processing information (col. 3 lines 29-30, wherein the print file is printed based on the information returned from the client terminal).

While Gase teaches a printing system with print information and print jobs being printed based on priority, Gase does not specifically teach that the piece of print processing information relates to a current operation state the transmission original terminal.

However, Tanimoto teaches that the print processing information is information relates to a current operation state of the transmission original terminal (a user can designate at the printer whether the client is at a designated or non-designated client; when the job is from a client [thus the print processing information is received] the printer checks [S 13] whether the relating operation state [the relating operation designation] of the client is designated or not; thus allowing priority or not on the printer for printing — thus, the print processing information relates to information at the printer of the currently set operation state of the specific client).

It would have been obvious to one of ordinary skill in the art that designating certain clients/terminals to have more access than others, thus allowing client designations in the system of Case. The motivations for doing so would have been to

allow users/terminals more access or faster printing times if it is set up that they should have it, or the system could be advantageous in not giving priority to those who shouldn't have it or don't need it. Two examples would be designating priority for a CEO's terminal and not designating priority for a mainframe that has many large jobs that aren't urgent.

With respect to claims 22 and 27, Gase further teaches that the piece of print processing information is a piece of processing priority information indicating a processing priority level of a print job (col. 3 lines 33-36, wherein the responding information from the client terminals are commands that rearrange print priority in the print queue 28).

With respect to claim 23, which depends from claim 22, Gase further teaches that the piece of processing priority information is input by an operator into a terminal input device (these information commands discussed in the rejection of claim 22 are generated via user operation of the client machines using the buttons 60, 62, 64, 66, and 68 in Fig. 4).

Regarding claims 25 and 28, which depends from claim 21, Gase further teaches that the transmission control unit transmits the request signal when the printer is available to process a new print job (col. 3 lines 25-30, wherein it is implied that the print controller to wait until the printer was available to request the print data information from the client terminal in order to save space at the print controller).

Regarding claim 29, Gase teaches a terminal 12 that transmits print jobs to a printer controller (col. 3 line 25, wherein it is implied for the terminal to transmit jobs that are received by the printer controller), the terminal comprising:

an information generating unit that generates a piece of print processing information indicating processing of a print job that has already been transmitted to the printer controller (col. 3

lines 27-30, wherein the client terminal generates the text information of print job that has already been sent to the printer controller in line 25);

a reception control unit that receives a request signal requesting the transmission of the piece of print processing information from the printer controller (col. 3 line 27, wherein it is implied that the client terminal has a reception control unit in order to accept the requests from the printer controller); and

a transmission control unit that transmits the piece of print processing information generated when the request signal is received, in response to the request signal (col. 3 line 29, wherein the responding is a transmission of the processing information).

While Gase teaches a printing system with print information and print jobs being printed based on priority, Gase does not specifically teach that the piece of print processing information relates to a current operation state the transmission original terminal.

However, Tanimoto teaches that the print processing information is information relates to a current operation state of the transmission original terminal (a user can designate at the printer whether the client is at a designated or non-designated client [S1]; when the job is from a client [thus the print processing information is received] the printer checks [S13] whether the relating operation state the relating operation designation] of the client is designated or not; thus allowing priority or not on the printer for printing — thus, the print processing information relates to information at the printer of the currently set operation state of the specific client).

It would have been obvious to one of ordinary skill in the art that designating

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certain clients/terminals to have more access than others, thus allowing client designations in the system of Gase. The motivations for doing so would have been to allow users/terminals more access or faster printing times if it is set up that they should have it, or the system could be advantageous in not giving priority to those who shouldn't have it or don't need it. Two examples would be designating priority for a CEO's terminal and not designating priority for a mainframe that has many large jobs that aren't urgent.

With respect to claim 30, which depends from claim 29, claim 30 includes all of the limitations of claim 22 as taught by Gase and Tanimoto, and is therefore rejected for the same reasons as the rejection of claim 22.

7. Claim 24 is rejected under 35 U.S.0 103(a) as being unpatentable over Gase and Tanimoto as applied to claim 22 above, and further in view of Muto.

Regarding claim 24, which depends from claim 22, Gase and Tanimoto do not teach the priority information is the time during which an operation has not operated a terminal.

Muto teaches the piece of processing priority information is generated according to an amount of time during which an operator has not operated a terminal (col. 14 lines 21-22, predetermined period of time since last use is included in print job information which would have been obvious to include as discussed in the rejection to claim 21, which is used in the frequency of use calculations of Fig. 17A).

It would have been obvious to one of ordinary skill in the art to give higher priority to devices and jobs that call for printing less often. The motivation for doing so would have

been to more equally allow the use of the printing device. For example, if one user (high frequency user) has 100 print jobs sent to a device, and another person only has sent one (low frequency user), it would be beneficial to allow the 1 job to complete so that user can continue with their work instead of waiting for all the 100 jobs to complete of the high frequency user.

8. Claims 31 — 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gase and Tanimoto as applied to claims 21, 26, and 29 above, and further in view of Noda.

Regarding claims 31 — 33, which depend from claims 21, 26, and 29, Gase and Tanimoto do not specifically teach that the pieces of operation information (included in print information) relates to a user's current manual operation of one of the plurality of terminals.

However, Noda teaches that print information relates to a user's current manual operation of the terminal because the user manually initiates the print job (see Fig. 7 and col. 4 lines 44-48).

It would have been obvious to one of ordinary skill in the art that the print jobs including print information could have related to the user manually operating the terminal to initiate the job. This is standard practice in all of the printing art to let a user initiate printing of their job and the motivation clearly is to let users print when they want to print, by hitting print buttons like 707 of Noda.

9. **Claims Objected As Containing Allowable Matter**

Claims 16 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. **Examiner's Remarks**

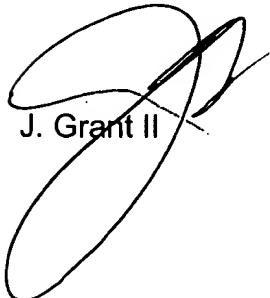
**Applicant's comments have been considered and are persuasive with respect to certain claims. Hence the new grounds of rejection. In other claims, for example, claims 21, 26 and 29, applicant appears to argue limitations which are not supported in the claim.**

11.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerome Grant II whose telephone number is 571-272-7463. The examiner can normally be reached on Jerome Grant II from Mon.-Thurs. to 9:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor David Moore, can be reached on 571-272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



J. Grant II